

AMENDMENTS TO THE CLAIMS

1-24. (Cancelled)

25. (New) An optical recording method for an optical storage medium, said method comprising the steps of:

allocating two or more discrete write powers to a single recording pulse pattern; and

supplying the recording pulse pattern to the optical storage medium.

26. (New) The optical recording method of claim 25, wherein the step of allocating the two or more discrete write powers to the single recording pulse pattern includes the step of allocating the two or more discrete write powers to a single rectangular recording pulse.

27. (New) The optical recording method of claim 26, further comprising the step of supplying the recording pulse to a pickup, the pickup emitting a light beam to the storage medium in accordance with the recording pulse, so that one of plural kinds of marks is recorded on the storage medium.

28. (New) The optical recording method of claim 27, further comprising the step of linearly varying each of the write powers in proportion with a change of one of the recording linear velocity and a recording position of the storage medium.

29. (New) An optical recording method for an optical storage medium, said method comprising the steps of:

allocating two or more discrete write powers to a recording pulse pattern such that head-end and tail-end portions of the recording pulse pattern are higher in write power than an intermediate portion of the recording pulse pattern; and
supplying the recording pulse pattern to the optical storage medium.

30. (New) The optical recording method of claim 29, wherein the step of allocating the two or more discrete write powers to the single recording pulse pattern includes the step of allocating the two or more discrete write powers to a single rectangular recording pulse.

31. (New) The optical recording method of claim 30, further comprising the step of supplying the recording pulse to a pickup, the pickup emitting a light beam to the storage medium in accordance with the recording pulse, so that one of plural kinds of marks is recorded on the storage medium.

32. (New) The optical recording method of claim 31, further comprising the step of linearly varying each of the write powers in proportion with a change of one of the recording linear velocity and a recording position of the storage medium.

33. (New) An optical recording apparatus for an optical storage medium, said apparatus comprising:

a write power allocating unit for allocating two or more discrete write powers to a single recording pulse pattern; and

a recording pulse pattern supplying unit for supplying the recording pulse pattern to a pickup.

34. (New) The optical recording apparatus of claim 33, wherein the write power allocating unit is arranged to allocate the at least two or more discrete write powers to a single rectangular recording pulse.

35. (New) The optical recording apparatus of claim 34, wherein the pickup is arranged to emit a light beam to the storage medium in accordance with the recording pulse, so that one of plural kinds of marks is recorded on the storage medium.

36. (New) The optical recording apparatus of claim 35, further comprising a write power control unit for linearly varying each of the write powers in proportion with a change of one of the recording linear velocity and a recording position of the storage medium.

37. (New) An optical recording apparatus for an optical storage medium, said apparatus comprising:

a write power allocating unit for allocating two or more discrete write powers to a single recording pulse pattern, such that head-end and tail-end portions of the recording pulse pattern are higher in write power than an intermediate portion of the recording pulse pattern; and

a recording pulse pattern supplying unit for supplying the recording pulse pattern to a pickup.

38. (New) The optical recording apparatus of claim 37, wherein the write power allocating unit is arranged to allocate the at least two or more discrete write powers to a single rectangular recording pulse.

39. (New) The optical recording apparatus of claim 38, wherein the pickup is arranged to emit a light beam to the storage medium in accordance with the recording pulse, so that one of plural kinds of marks is recorded on the storage medium.

40. (New) The optical recording apparatus of claim 39, further comprising a write power control unit for linearly varying each of the write powers in proportion with a change of one of the recording linear velocity and a recording position of the storage medium.